

# **EXHIBIT 18**

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Google Inc.  
Petitioner,  
v.  
Network-1 Technologies, Inc.  
Patent Owner.

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Case IPR2015-00343  
U.S. Patent 8,640,179

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**PETITION FOR *INTER PARTES* REVIEW OF**  
**U.S. PATENT NO. 8,640,179 UNDER 35 U.S.C. §§ 311-319**

the '179 patent, and should be construed—under the "broadest reasonable construction" standard—to mean "a search that locates a match without conducting a brute force comparison of all possible matches, and all data within all possible matches." Ex. 1004 at ¶¶ 40-44. The specification never uses the term "non-exhaustive" or "exhaustive." Ex. 1001. However, in 2000, persons skilled in the art employed multiple constructions, the broadest of which was consistent with the above definition. Ex. 1004 at ¶ 40. Any search algorithm that is not guaranteed to find an existing match is non-exhaustive under this definition. Ex. 1004 at ¶ 41.

The term "**neighbor search**" appears in all independent claims of the '179 patent, and should be construed to mean "identifying a close, but not necessarily exact, match." In 2000, persons skilled in art consistently employed this definition. Ex. 1004 at ¶ 45. Consistent with the above, the term "**neighbor**" should be construed to mean "a close, but not necessarily exact, match." *Id.* at ¶ 47.

Slight variations of the term "**associating . . . the determined action with the first electronic work**" appear in all independent claims of the '179 patent, and should be construed to mean "establishing any relationship between an action and an identified work, including performing the action in response to identifying the work." Ex. 1004 at ¶ 48. Though the '179 specification notes that the database "may associate" known works "with associated information 136, such as an action" (Ex. 1001 at 6:32-34), it never discloses the association of a *newly identified work* with

an action. However, the specification makes clear that associating an action with a newly identified work cannot refer to recording in the database that the action and the work correspond, because the database already contains this information. That is, because the '179 patent determines an action by retrieving a record in the database relating the work to the action (*e.g.*, *id.* at 6:55-58), it would be nonsensical for the system to subsequently rewrite the same information back to the same database. Thus, in the absence of guidance from the specification, this term should be construed to include establishing any relationship between a work and an action. This includes performing an action in response to determining an identification, which requires establishing a relationship between a work and an action.

For all other claim terms, the plain and ordinary meaning should apply.

## **VI. ANALYSIS OF GROUNDS FOR TRIAL**

### **A. Ground 1: Claims 1-3, 6-14, 18-19, 21-26, 30-37 of the '179 Patent Are Obvious Over Levy In View Of Arya Under 35 U.S.C. § 103**

Levy was filed on May 2, 2000, and issued on January 7, 2003. Ex. 1013. Accordingly, Levy is prior art to the '179 patent under 35 U.S.C. § 102(e). Arya was published on July 6, 1998, and is therefore prior art under 35 U.S.C. § 102(b). Levy was before the examiner during prosecution of the '179 patent, but was never cited. Arya was not before the examiner during prosecution.

bits of the work or applying a hash algorithm. Ex. 1009 at 1:60-67, Abstract.

Third, the '179 Claims require "identifying" the unknown work "using a non-exhaustive neighbor search." Ex. 1001 at Claims 1, 13, 25. Conwell discloses identifying a work by performing a lookup in a hash table. Ex. 1009 at 3:43-62, Figs. 1, 3. Because the hash algorithm generates the same output identifier for similar, but non-identical, inputs, the table look-up will return similar "neighbor" results even when the input work is not identical to the reference work. *Id.* at 4:64-5:3; Ex. 1004 at ¶ 86. This search is non-exhaustive because it does not require a brute force comparison of all possible hashes, but rather requires a single lookup in a numerically sorted lookup table that uses hash identifiers as an index. *E.g.*, Ex. 1009 at 3:43-50, 5:58-64; Ex. 1004 at ¶ 86.

Fourth and fifth, the '179 Claims require "determining" an appropriate action based on the "electronic data related to an action" and "associating . . . the determined action with the" identified work, which encompasses performing an action. Ex. 1001 at 1, 13, 25. Conwell discloses performing the table look-up using the identifier and selecting the corresponding URL that is stored as the second electronic data associated with the identifier (the first electronic data that is determined to match the first electronic work). Ex. 1009 at 3:43-59, Fig. 3. Conwell then returns the corresponding URL in response to the user's query using the derived identifier, and the user's device accesses the URL. *Id.* at 56-60. The

associated URL can be, for example, "a portal to a web site dedicated to the music artist, a web site giving concert schedules for the artist, a web site offering CDs," and can include "banner advertising." *Id.* at 3:50-55, 4:30-34, 2:45-46.

As demonstrated above and in the below chart, claims 1-3, 6, 8-14, 19, 21-26, 30-31, and 34-37 are taught by Conwell, and are therefore unpatentable.

'179 patent	Conwell (Ex. 1009)
1. A computer-implemented method comprising:	Non-limiting preamble.
(a) maintaining, by a computer system including at least one computer, a database comprising:	Conwell teaches a database where "each active record includes an identifier and a corresponding URL." 3:43-44, Figs. 1, 3-4.
(1) first electronic data related to identification of one or more reference electronic works; and	Conwell teaches first electronic data in the form of identifiers that are derived from content. 1:60-67, 3:43-62, Figs. 3-4.
(2) second electronic data related to action information comprising an action to perform corresponding to each of the one or more reference electronic works;	Conwell teaches second electronic data comprising an action to perform, which is a "URL corresponding to" each of the first electronic data (i.e., the identifiers). 3:43-62, Figs. 3-4.
(b) obtaining, by the computer system, extracted features of a first electronic work;	Conwell obtains extracted features by deriving them from the work, e.g., using a "hashing" algorithm. Abstract, 3:43-62, 1:65-67.
(c) identifying, by the computer system, the first electronic work by comparing the extracted features of the first electronic work with the first electronic data in the database using a non-exhaustive neighbor search;	Conwell identifies an electronic work by accessing a lookup table in a computer system to "decode an identifier [i.e., extracted features] from the audio content and send the identifier to the database, [which] responds by returning the URL corresponding to that identifier back to